TEJUS
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Test report on Compressive strength of concrete cubes

Project:	Improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Dev circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.
Client:	Bruhat Bangalore Mahanagar Palike
Consultant:	TEJUS CONSULTANTS
Contractor:	E, RAMESH ANAND
Grade of concrete:	M15
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg Compre streng
				Kg	mm^2	KN	N/mm^2	N/m
1	03.05.18	10.05.18	7 days	8.105	22500	220	9.78	
2	03.05.18	10.05.18	7 days	8.109	22500	219	9.73	9.8
3	03.05.18	10.05.18	7 days	8.110	22500	223	9.91	

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Test report on Compressive strength of concrete cubes

Project	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	E, RAMESH ANAND
Grade of concrete:	M15
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	03.05.18	10.05.18	7 days	8.108	22500	222	9.87	9.87
2	03.05.18	10.05.18	7 days	8.109	22500	224	9.96	
3	03.05.18	10.05.18	7 days	8.113	22500	220	9.78	

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Test report on Compressive strength of concrete cubes

Project	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	E, RAMESH ANAND
Grade of concrete:	M15
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	03.05.18	31.05.18	28 days	8.135	22500	344	15.29	15.24
2	03.05.18	31.05.18	28 days	8.139	22500	343	15.24	
3	03.05.18	31.05.18	28 days	8.142	22500	342	15.20	

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Test report on Compressive strength of concrete cubes

Project	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	E, RAMESH ANAND
Grade of concrete:	M15
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	03.05.18	31.05.18	28 days	8.119	22500	345	15.33	15.41
2	03.05.18	31.05.18	28 days	8.122	22500	348	15.47	
3	03.05.18	31.05.18	28 days	8.125	22500	347	15.42	

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PRECAST SLAB (CORE) TEST REPORT

Client	:	Bruhat Bangalore Mahanagara Palike
Contractor	:	RAMESH ANAND, E
Name of Work	:	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.
No.of Sample Tested	:	3
Date of Testing	:	09/05/18
Technical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete	:	M_{20} - 250mm Thick

Sl.No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	100.00	180.00	3.441	2434.01	1.80	0.960	158.60	20.19	21.81	20.94	26.17
2	100.00	180.00	3.435	2429.77	1.80	0.960	158.65	20.20	21.82	20.94	26.18
3	100.00	180.00	3.448	2438.96	1.80	0.960	158.66	20.20	21.82	20.94	26.18

Note:

1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported reported within 15 days from the date of testing.

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PRECAST SLAB (CORE) TEST REPORT

Client	:	Bruhat Bangalore Mahanagara Palike
Contractor	:	E, RAMESH ANAND
Name of Work	:	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub
No.of Sample Tested	:	3
Date of Testing	:	09/05/18
Technical Reference	:	IS:516-1959 (Reaffirmed 1999), SP-24:1983.
Grade of Concrete	:	M_{20} . 100mm thick

Sl.No.	Dia of Core D (mm)	Height of Core H (mm)	Core Wt (Kg)	Density of Core (kg / m^3)	H / D	Correction factor (Based on H/D)	Failure Load (kN)	Core Strength (N/mm^2)	Correction Factor for the Dia. (Strength of the Core x 1.08)	Corrected Cylinder Compressive Strength (N/mm^2)	Equivalent Cube Compressive Strength (N/mm^2)
1	50.00	85.00	0.415	2486.56	1.70	0.960	39.60	20.17	21.78	20.91	26.14
2	50.00	85.00	0.406	2432.64	1.70	0.960	39.50	20.12	21.73	20.86	26.07
3	50.00	85.00	0.411	2462.60	1.70	0.960	39.60	20.17	21.78	20.91	26.14

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CONSULTANTS & TESTING CENTER

Highway / Building Material Testing | Structural Strengthening Solutions
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Soil Stabilization and Shoring Services | Non - Destructive Testing

NABL ACCREDITED AS PER ISO/IEC 17025:2005

CECTCP/RA/QC/2018-19 Date: 11.05.2018

TEST RESULTS OF PHYSICAL PROPERTIES OF REINFORCEMENT STEEL

: **Bruhat Bangalore Mahanagar Palike**

: **Sri. Ramesh Anand E**

Name of Work : Improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.

Sample Identification : 8mm, 10mm TMT Bars

Reference : IS 1786:2008, IS 1608:2005, IS 1599:1985 (Reaffirmed 2006)

Date of Test : 11.05.2018

Sl.No	Nominal size (dia in mm)	Mass per metre (kg/metre)	TENSILE STRENGTH		
			0.20 % proof stress/ yield stress ($N/mm^{2)}$	Tensile strength ($N/mm^{2)}$	Elongation, percent on gauge length
1	8	0.398	529	579	17
3	10	0.617	563	596	19

Note:

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Any query regarding the report must be reported within 15 days from the date of testing.

For Civil Experts

Authorised Sig

174, Sri Ranga Complex, Amrutha Nagar Main Road, New Bank Colony, Konanakunte, Bangalore - 560 062.
Mobile : +91 97429 59595 | Tel/Fax : 080 2632 2565 | Email : civilexpertsltd@gmail.com | URL : www.civilexperts.co.in

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Test Report on Cement

Project	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	E, RAMESH ANAND
Sample ID	Cement
Date of Sample Tested	21.05.18
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	37 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	332 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	3mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	27.00%	

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Test Report on Cement

Project	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	E, RAMESH ANAND
Sample ID	Cement
Date of Sample Tested	21.05.18
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	38 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	350 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	4 mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	28.00%	

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle-GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.	
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore	
Contractor	RAMESH ANAND, E	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	20 mm down size	Proposed Use	Drain	
Sample Location	At Plant	Date of Sampling	21.05.18	
		Date of Testing	21.05.18	

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	282	282	2.82	97.18	95 - 100
10.00 mm	4682	4964	49.64	50.36	25 - 55
4.75 mm	4222	9186	91.86	8.14	0 - 10
Pan	814	10000			

Remarks : Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle-GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.	
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore	
Contractor	E, RAMESH ANAND	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	20 mm down size	Proposed Use	Side Concrete	
Sample Location	At Plant	Date of Sampling	21.05.18	
		Date of Testing	21.05.18	

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	254	254	2.54	97.46	95 - 100
10.00 mm	4611	4865	48.65	51.35	25 - 55
4.75 mm	4216	9081	90.81	9.19	0 - 10
Pan	919	10000			

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.	
Consultants	TEJUS CONSULTANTS	
Contractor	E, RAMESH ANAND	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	12.5 mm down size	Proposed Use	Drain	
Sample Location	Plant	Date of Sampling	21.05.18	
		Date of Testing	21.05.18	

IS Sieve Size (in mm)	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
20.0	0	0	0	100	100
12.5	545	545	5.45	94.55	90-100
10.0	3216	3761	37.61	62.39	40-85
4.75	5562	9323	93.23	6.77	0-10
Pan	677	10000			

Remarks : Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.	
Consultants	TEJUS CONSULTANTS	
Contractor	E, RAMESH ANAND	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	12.5 mm down size		Proposed Use	Drain	
Sample Location	Plant		Date of Sampling	21.05.18	
			Date of Testing	21.05.18	
IS Sieve Size (in mm)	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
20.0	0	0	0	100	100
12.5	554	554	5.54	94.46	90-100
10.0	3284	3838	38.38	61.62	40-85
4.75	5622	9460	94.60	5.40	0-10
Pan	540	10000			

Remarks : Satisfactory / Not Satisfactory

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	RAMESH ANAND, E

SPECIFIC GRAVITY AND WATER ABSORPTION

Type of Material	Sand	Proposed Use	coping concrete/PCC
Location/Source	At Plant/At site	Date of Sampling	21.05.18
Period of Soaking	24 hours	Date of Testing	21.05.18

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	Average
A	Weight of sturated surface dry sample gm.	652	647	675	
B	Weight of oven - dry sample gm.	642	639	666	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1684	1682	1700	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.642	2.663	2.664	**2.656**
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.558	1.252	1.351	**1.387**

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	improvements to footpaths on vidyaranyapura main road both sides from Nanjappa circle - Devi circle- GKVK road in Ward No. 09 in Vidyaranyapura Sub Devision.
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	RAMESH ANAND, E

SIEVE ANALYSIS

Total Weight:	3000 gms				
Type of Material	Fine aggregate (River Sand)		Proposed Use	coping concrete/PCC	
Sample Location	At Plant/At site		Date of Sampling	21.05.18	
			Date of Testing	21.05.18	
IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
4.75 mm	0	0	0	100.00	100
2.36 mm	190	190	6.33	93.67	90 - 100
1.18 mm	380	570	19.00	81.00	75 - 100
600 mm	490	1060	35.33	64.67	55 - 90
300 mm	430	1490	49.67	50.33	35 -59
150 mm	676	2166	72.20	27.80	8-30
75 mm	564	2730	91.00	9.00	0 - 10
Pan	270	3000			-
Remarks:					

Satisfactory / Not Satisfactory

Consultant's Representative